OBLON, SPIVAK, ET AL.
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 1 OF 56

FIG.1

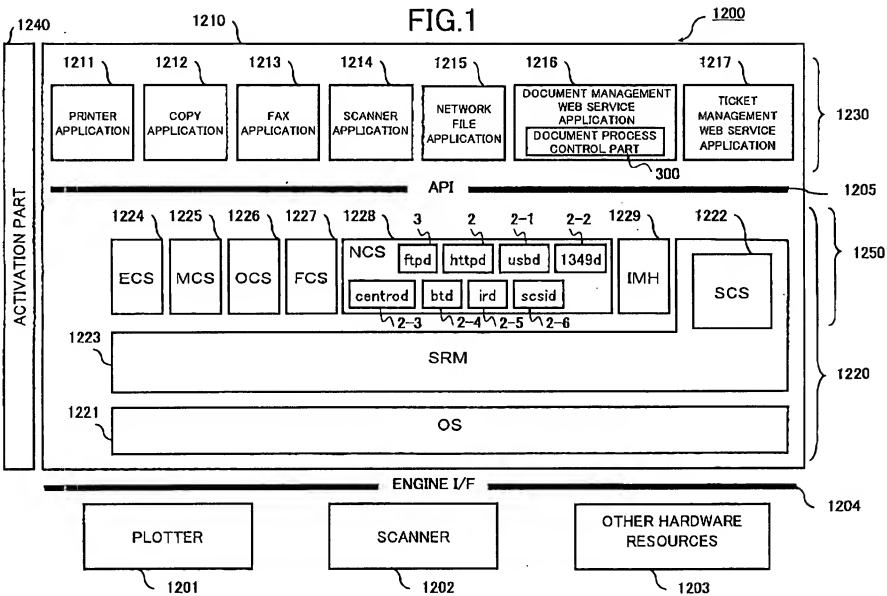


FIG.2

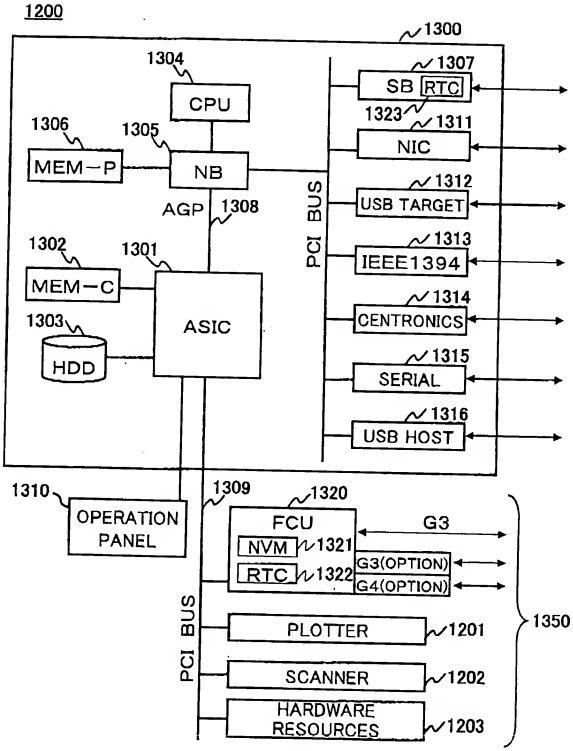
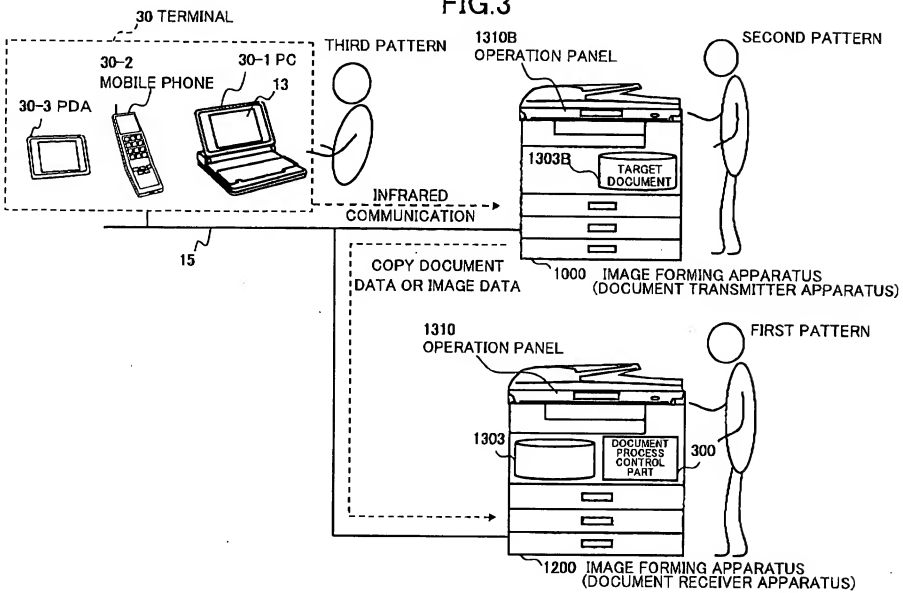

1200
1300
1304
CPU
1306
MEM-P
1305
NB
AGP
1308
1302
MEM-C
1301
ASIC
1303
HDD
PCI BUS
1307
SB
RTC
1323
1311
NIC
1312
USB TARGET
1313
IEEE1394
1314
CENTRONICS
1315
SERIAL
1316
USB HOST
1310
OPERATION PANEL
1309
1320
FCU
G3
NVM
1321
RTC
1322
G3(OPTION)
G4(OPTION)
PCI BUS
PLOTTER
1201
SCANNER
1202
HARDWARE RESOURCES
1203
1350

FIG.3



OBLON, SPIVAK, ET AL.
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 3 OF 56

FIG.4

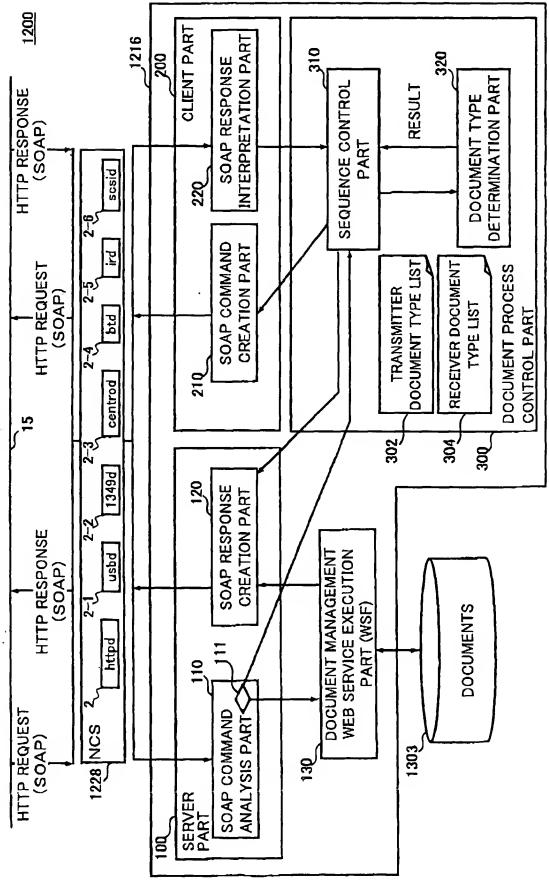

HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
15
HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
1200
1216
200
CLIENT PART
SOAP RESPONSE INTERPRETATION PART
220
SOAP COMMAND CREATION PART
210
SEQUENCE CONTROL PART
310
RESULT
320
DOCUMENT TYPE DETERMINATION PART
TRANSMITTER DOCUMENT TYPE LIST
302
RECEIVER DOCUMENT TYPE LIST
304
DOCUMENT PROCESS CONTROL PART
300
1228
NCS
2
2-1
httpd
2-2
usbd
2-3
1349d
2-4
centrod
2-5
btd
2-6
ird
scsid
100
SERVER PART
SOAP COMMAND ANALYSIS PART
110
111
SOAP RESPONSE CREATION PART
120
DOCUMENT MANAGEMENT WEB SERVICE EXECUTION PART (WSF)
130
1303
DOCUMENTS

FIG.5

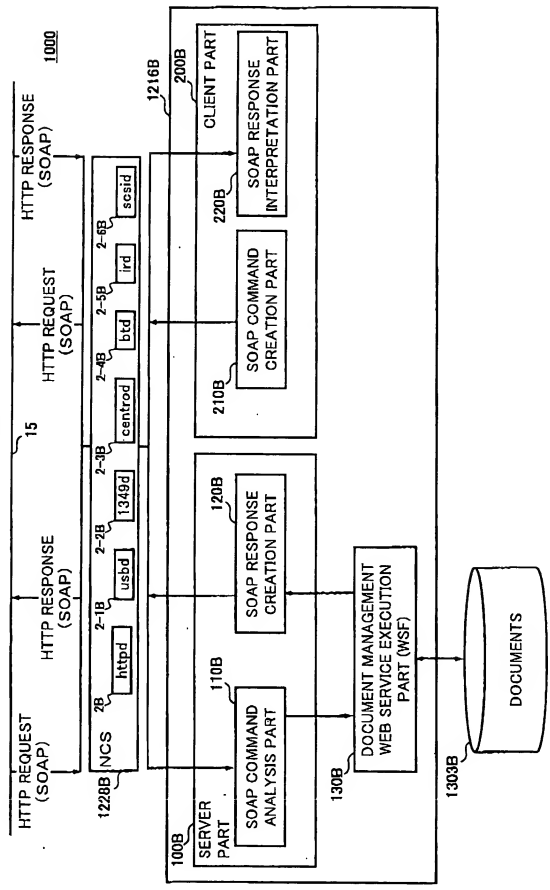

1000
HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
15
HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
1228B
NCS
2B
2-1B
httpd
2-2B
usbd
2-3B
13490d
2-4B
centrod
2-5B
btd
2-6B
ird
scsid
1216B
200B
CLIENT PART
220B
SOAP RESPONSE INTERPRETATION PART
210B
SOAP COMMAND CREATION PART
100B
SERVER PART
110B
SOAP COMMAND ANALYSIS PART
120B
SOAP RESPONSE CREATION PART
130B
DOCUMENT MANAGEMENT WEB SERVICE EXECUTION PART (WSF)
1303B
DOCUMENTS

FIG.6

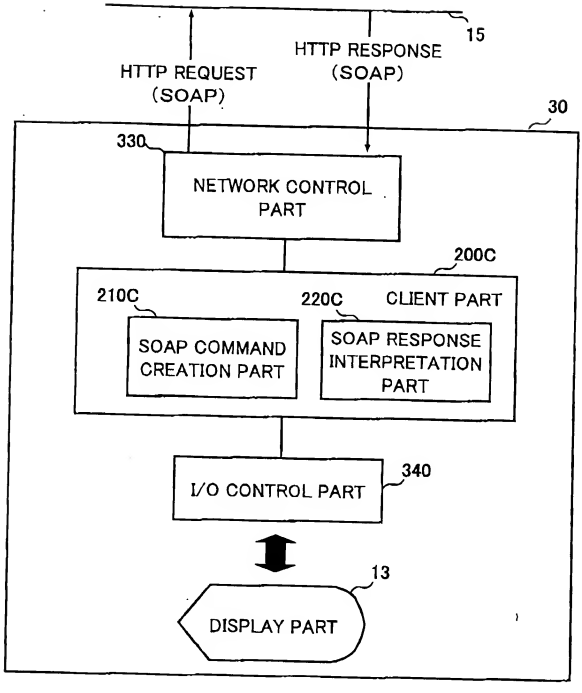

15
HTTP REQUEST
(SOAP)
HTTP RESPONSE
(SOAP)
30
330
NETWORK CONTROL
PART
200C
210C
220C
CLIENT PART
SOAP COMMAND
CREATION PART
SOAP RESPONSE
INTERPRETATION
PART
I/O CONTROL PART
340
13
DISPLAY PART

FIG.7

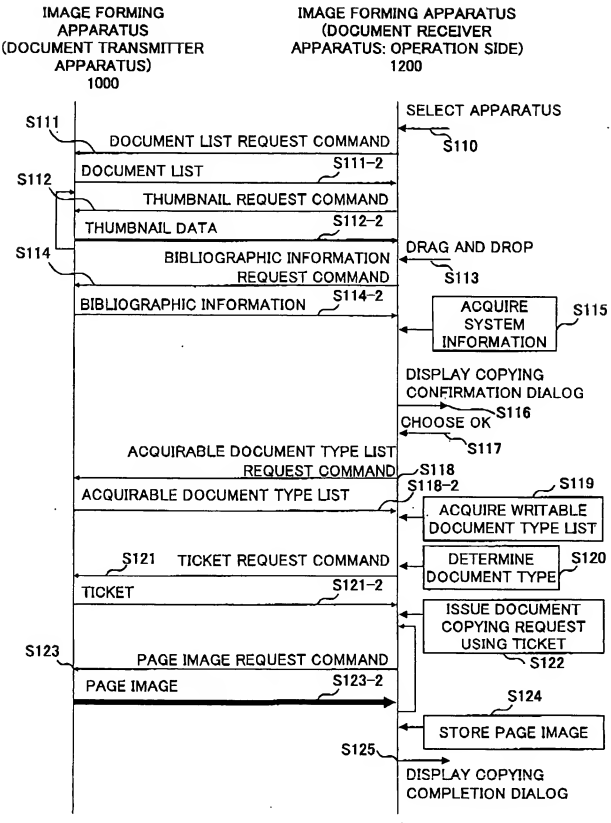


IMAGE FORMING APPARATUS (DOCUMENT TRANSMITTER APPARATUS) 1000
IMAGE FORMING APPARATUS (DOCUMENT RECEIVER APPARATUS: OPERATION SIDE) 1200
SELECT APPARATUS
S110
S111
DOCUMENT LIST REQUEST COMMAND
S111-2
DOCUMENT LIST
S112
THUMBNAIL REQUEST COMMAND
S112-2
THUMBNAIL DATA
DRAG AND DROP
S113
S114
BIBLIOGRAPHIC INFORMATION REQUEST COMMAND
S114-2
BIBLIOGRAPHIC INFORMATION
ACQUIRE SYSTEM INFORMATION
S115
DISPLAY COPYING CONFIRMATION DIALOG
S116
CHOOSE OK
S117
ACQUIRABLE DOCUMENT TYPE LIST REQUEST COMMAND
S118
S118-2
ACQUIRABLE DOCUMENT TYPE LIST
S119
ACQUIRE WRITABLE DOCUMENT TYPE LIST
S121
TICKET REQUEST COMMAND
DETERMINE DOCUMENT TYPE
S120
S121-2
TICKET
ISSUE DOCUMENT COPYING REQUEST USING TICKET
S122
S123
PAGE IMAGE REQUEST COMMAND
S123-2
PAGE IMAGE
S124
STORE PAGE IMAGE
S125
DISPLAY COPYING COMPLETION DIALOG

FIG.8

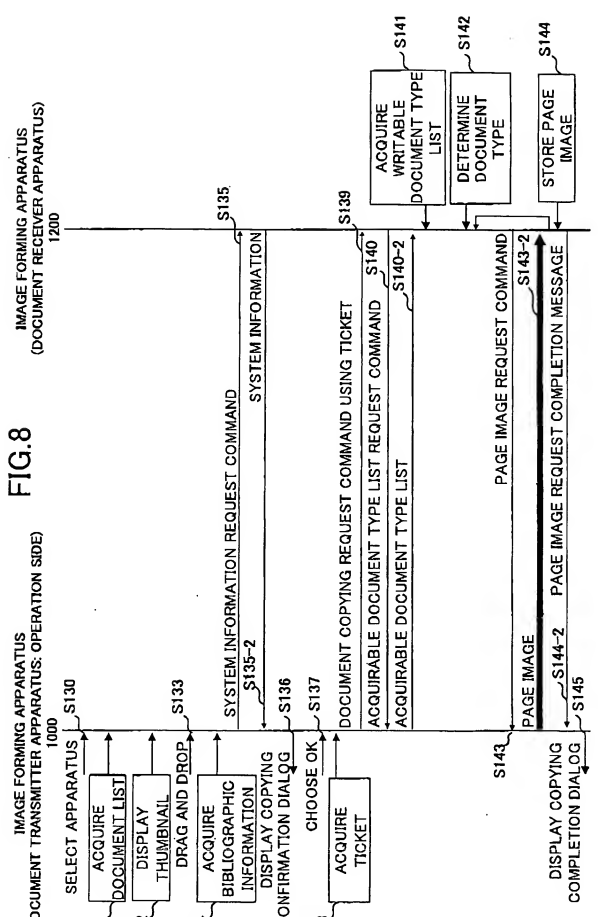


IMAGE FORMING APPARATUS
(DOCUMENT TRANSMITTER APPARATUS: OPERATION SIDE)
1000
IMAGE FORMING APPARATUS
(DOCUMENT RECEIVER APPARATUS)
1200
SELECT APPARATUS
S130
S131
ACQUIRE DOCUMENT LIST
S132
DISPLAY THUMBNAIL
S133
DRAG AND DROP
S134
ACQUIRE BIBLIOGRAPHIC INFORMATION
DISPLAY COPYING CONFIRMATION DIALOG
S135
SYSTEM INFORMATION REQUEST COMMAND
S135-2
SYSTEM INFORMATION
S136
CHOOSE OK
S137
S138
ACQUIRE TICKET
DOCUMENT COPYING REQUEST COMMAND USING TICKET
S139
ACQUIRABLE DOCUMENT TYPE LIST REQUEST COMMAND
S140
S140-2
ACQUIRABLE DOCUMENT TYPE LIST
S141
ACQUIRE WRITABLE DOCUMENT TYPE LIST
S142
DETERMINE DOCUMENT TYPE
S143
PAGE IMAGE
PAGE IMAGE REQUEST COMMAND
S143-2
S144
STORE PAGE IMAGE
DISPLAY COPYING COMPLETION DIALOG
S144-2
PAGE IMAGE REQUEST COMPLETION MESSAGE
S145

OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 9 OF 56

FIG.9

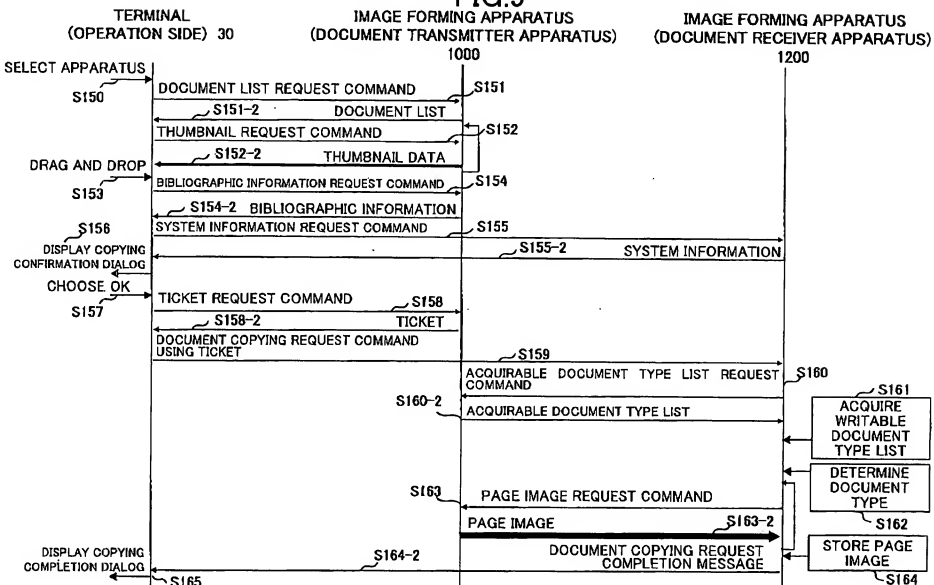
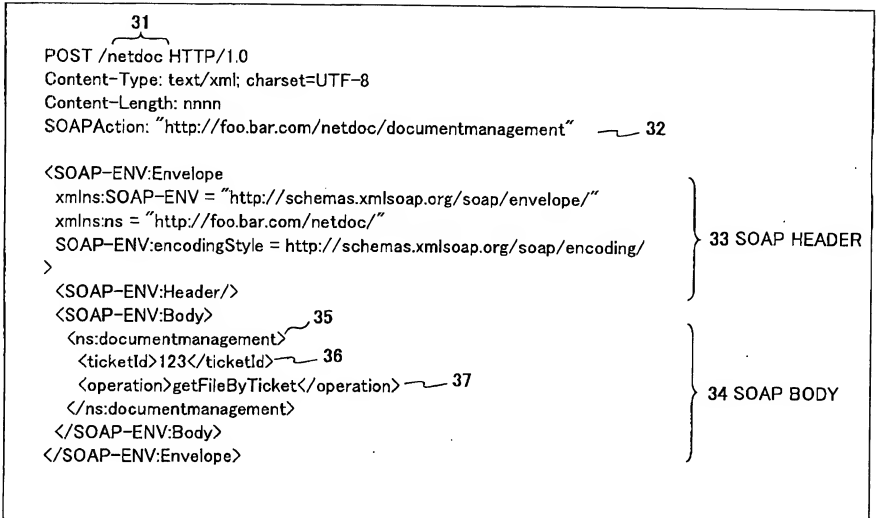
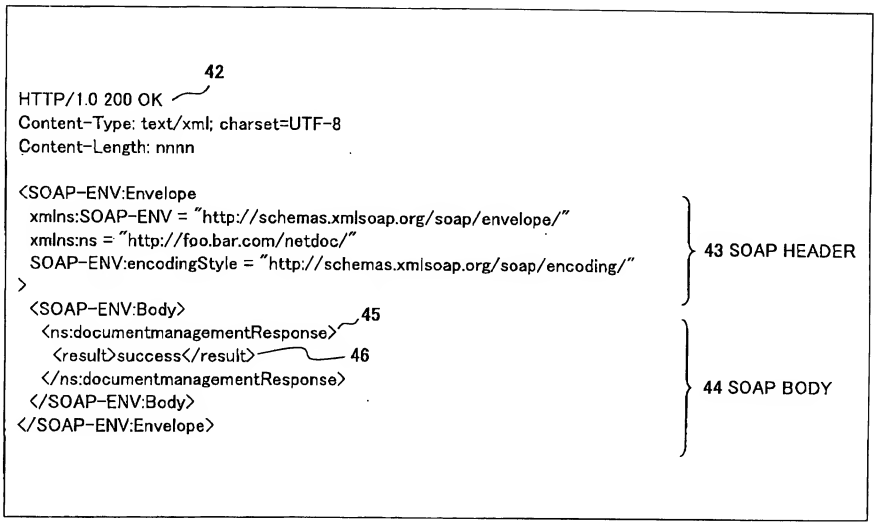


FIG.10



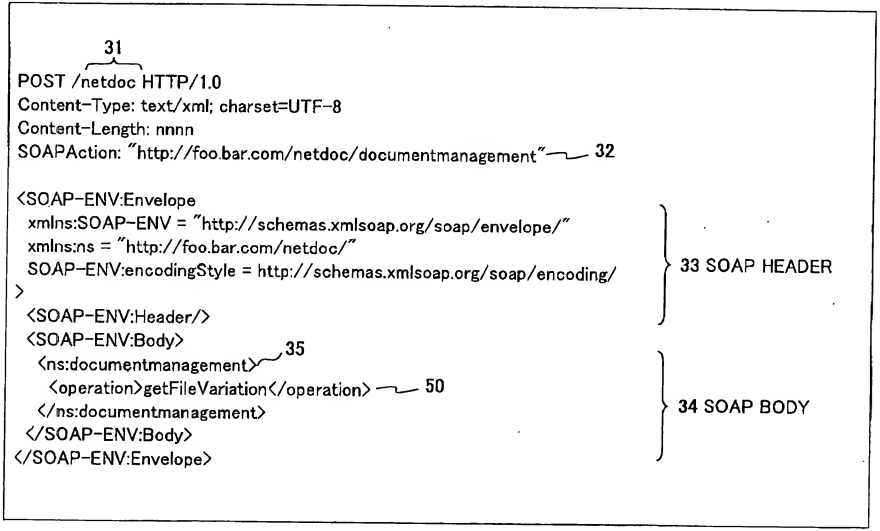
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 10 OF 56

FIG.11



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 11 OF 36

FIG.12



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: KATSUMI MARUYAMA
SHEET 12 OF 36

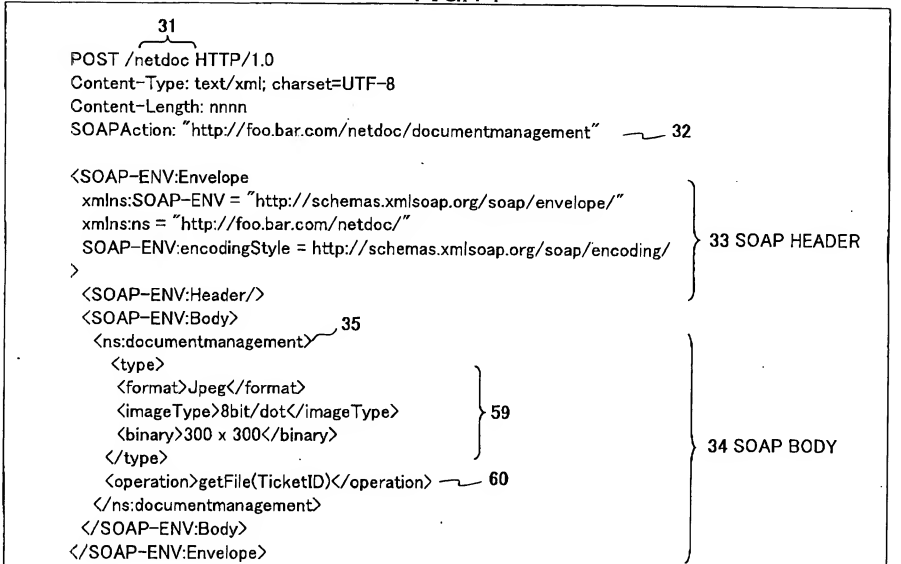
FIG.13

```
HTTP/1.0 200 OK ⟵ 42
Content-Type: text/xml; charset=UTF-8
Content-Length: nnnn

<SOAP-ENV:Envelope
  xmlns:SOAP-ENV = "http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:ns = "http://foo.bar.com/netdoc/"
  SOAP-ENV:encodingStyle = "http://schemas.xmlsoap.org/soap/encoding/"
>                                                                          } 43 SOAP HEADER
  <SOAP-ENV:Body>
    <ns:documentmanagementResponse>
      <type>
        <format>Tiff</format>
        <imageType>1bit/dot</imageType>          } 52
        <binary>600 x 600</binary>
      </type>
      <type>
        <format>Jpeg</format>
        <imageType>8bit/dot</imageType>          } 53
        <binary>300 x 300</binary>
      </type>                                                              } 44 SOAP BODY
      <type>
        <format>Jpeg2000</format>
        <imageType>8bit/dot</imageType>          } 54
        <binary>600 x 600</binary>
      </type>
    </ns:documentmanagementResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

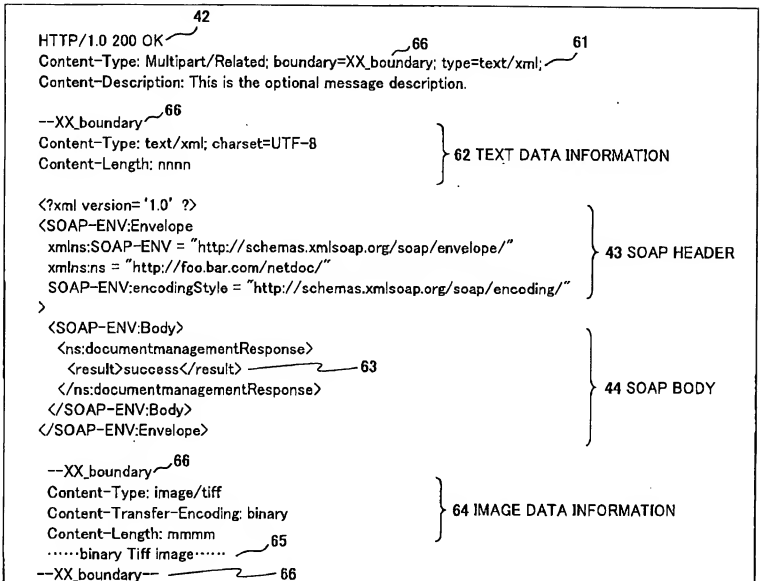
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 13 OF 56

FIG.14



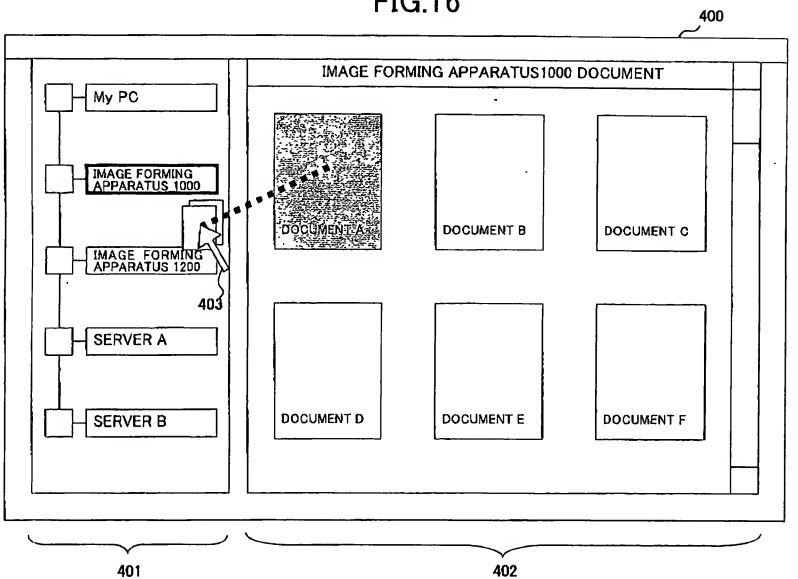
OBLON, SPIVAK, ET AL.
DOCKET #: 249043US2
INV: Teruyuki MARUYAMA
SHEET 14 OF 56

FIG.15



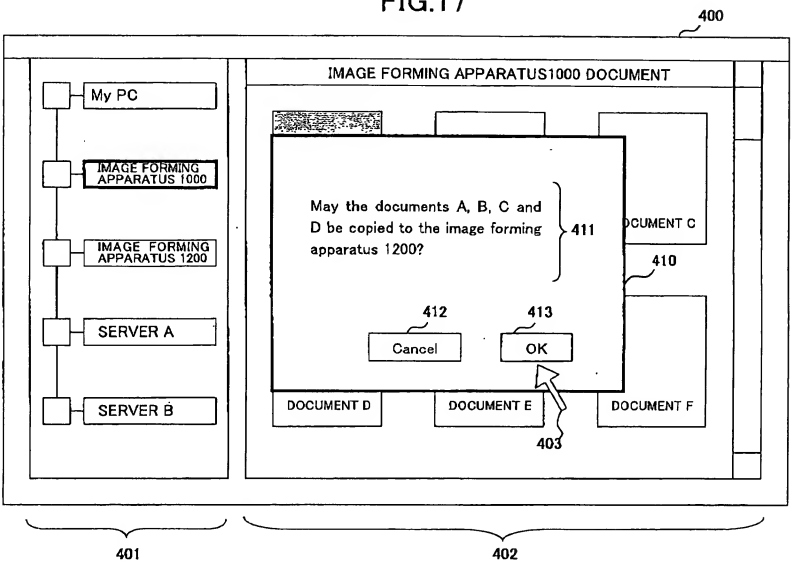
OBLON, SPIVAK, ET AL
DOCKET #: 2430431S2
INV: Teruyuki MARUYAMA
SHEET 15 OF 56

FIG.16



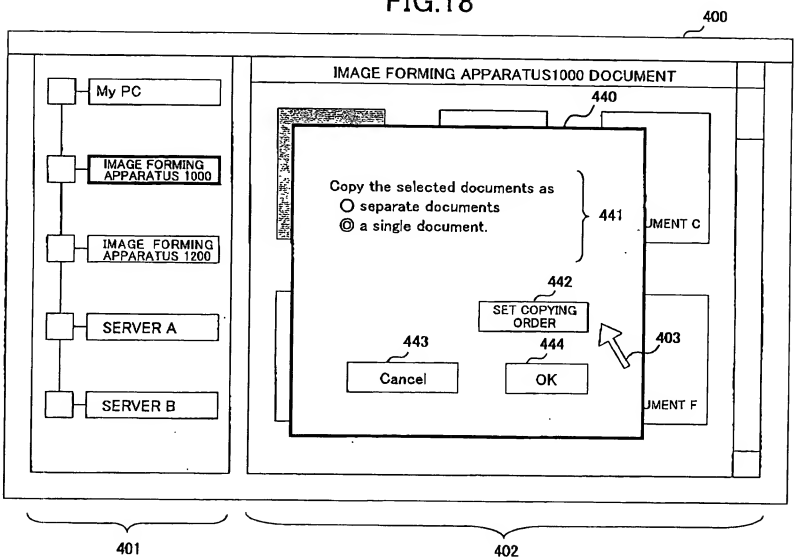
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 16 OF 56

FIG.17



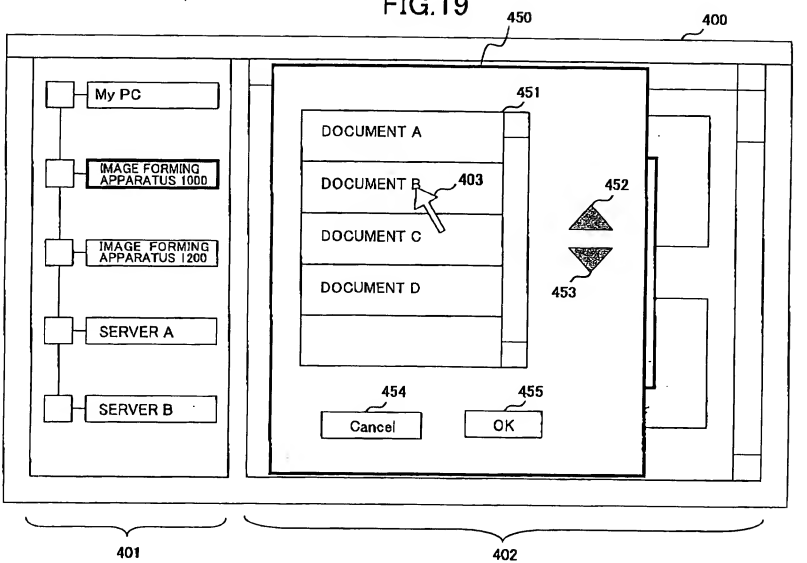
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 17 OF 56

FIG.18



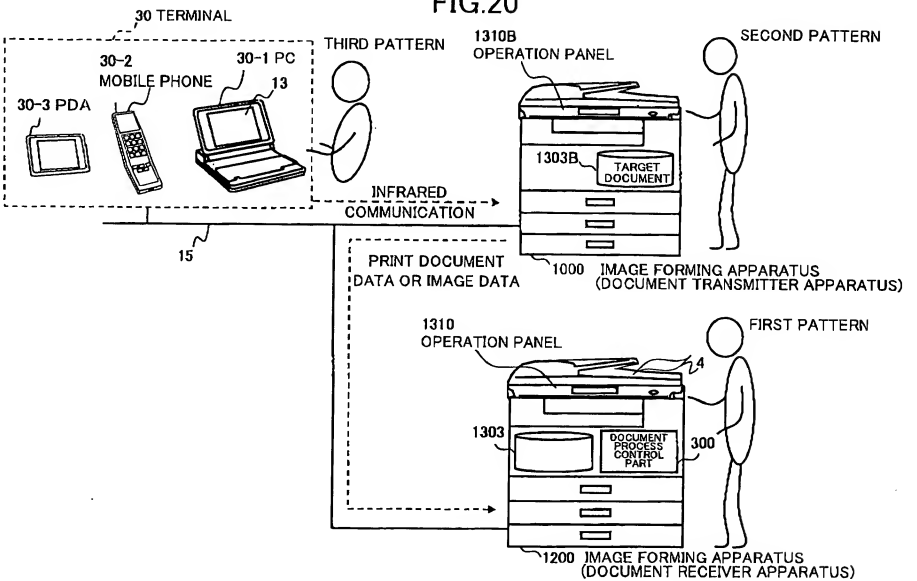
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: TSUYOSHI MAKUYAMA
SHEET 18 OF 36

FIG.19



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 19 OF 56

FIG.20



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: TAKUYA HIRAMATSUYAMA
SHEET 20 OF 56

FIG.21

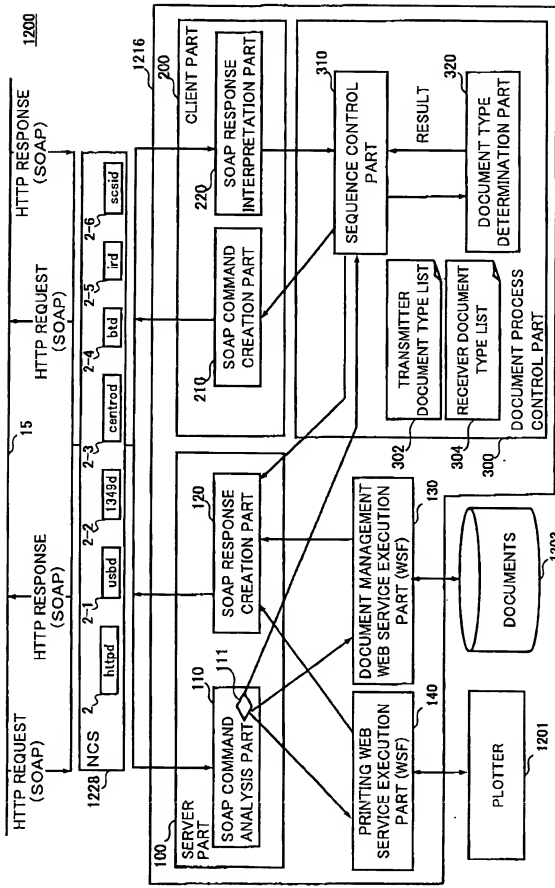

HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
15
HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
1200
1228
NCS
2
2-1
httpd
2-2
usbd
1349d
2-3
centrod
2-4
btd
2-5
ird
2-6
scsid
1216
100
SERVER PART
110
SOAP COMMAND ANALYSIS PART
111
120
SOAP RESPONSE CREATION PART
200
CLIENT PART
210
SOAP COMMAND CREATION PART
220
SOAP RESPONSE INTERPRETATION PART
310
SEQUENCE CONTROL PART
320
RESULT
DOCUMENT TYPE DETERMINATION PART
302
TRANSMITTER DOCUMENT TYPE LIST
304
RECEIVER DOCUMENT TYPE LIST
300
DOCUMENT PROCESS CONTROL PART
130
DOCUMENT MANAGEMENT WEB SERVICE EXECUTION PART (WSF)
140
PRINTING WEB SERVICE EXECUTION PART (WSF)
1303
DOCUMENTS
1201
PLOTTER

FIG.22

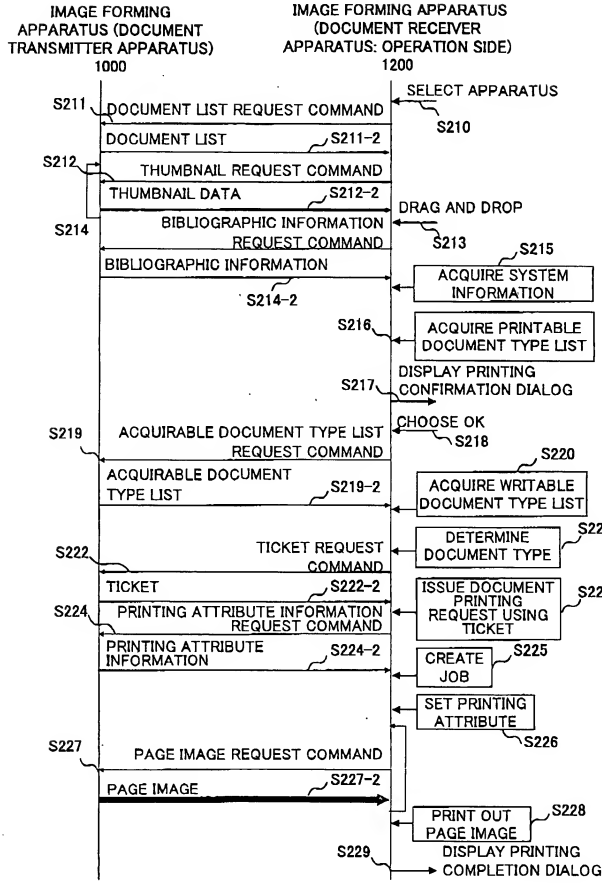
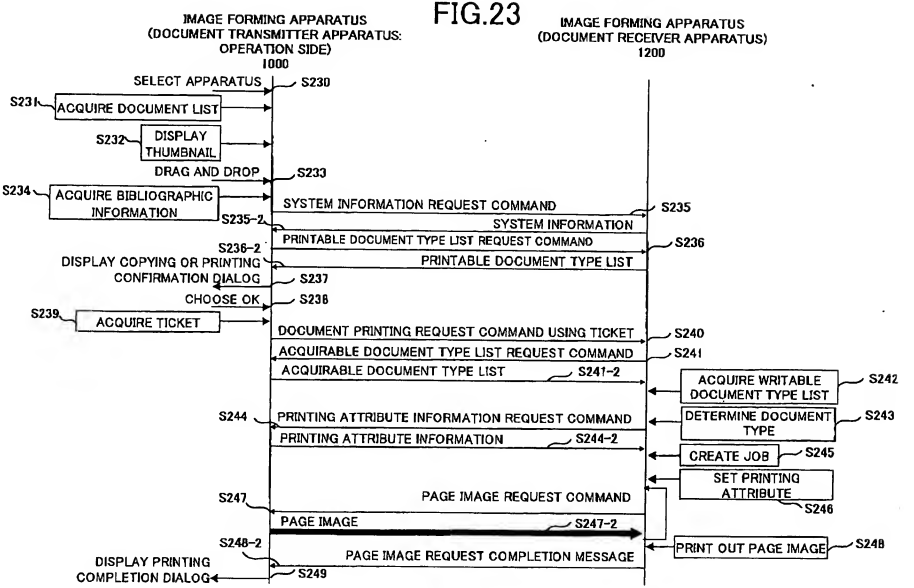


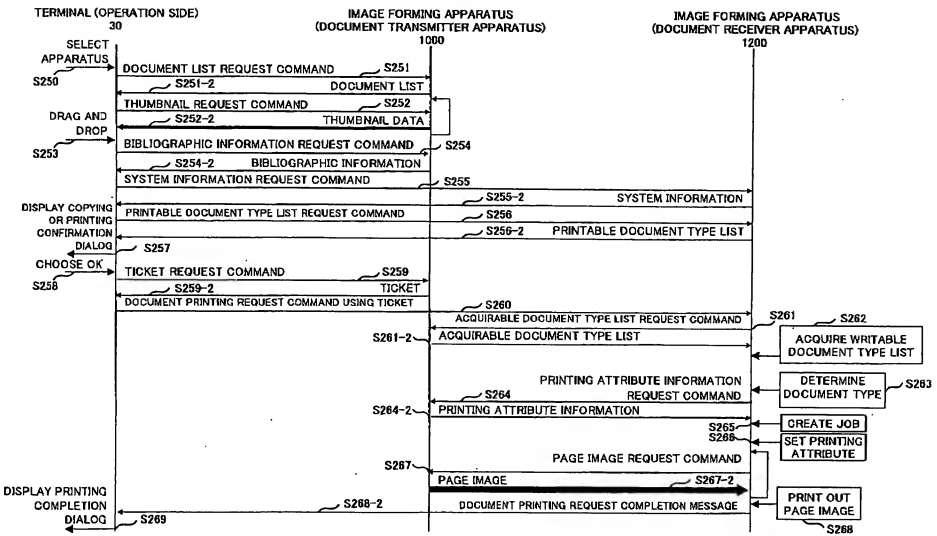
IMAGE FORMING APPARATUS (DOCUMENT TRANSMITTER APPARATUS)
1000
IMAGE FORMING APPARATUS (DOCUMENT RECEIVER APPARATUS: OPERATION SIDE)
1200
SELECT APPARATUS
S210
S211
DOCUMENT LIST REQUEST COMMAND
DOCUMENT LIST
S211-2
S212
THUMBNAIL REQUEST COMMAND
THUMBNAIL DATA
S212-2
DRAG AND DROP
S213
S214
BIBLIOGRAPHIC INFORMATION REQUEST COMMAND
BIBLIOGRAPHIC INFORMATION
S214-2
S215
ACQUIRE SYSTEM INFORMATION
S216
ACQUIRE PRINTABLE DOCUMENT TYPE LIST
S217
DISPLAY PRINTING CONFIRMATION DIALOG
CHOOSE OK
S218
S219
ACQUIRABLE DOCUMENT TYPE LIST REQUEST COMMAND
ACQUIRABLE DOCUMENT TYPE LIST
S219-2
S220
ACQUIRE WRITABLE DOCUMENT TYPE LIST
S221
DETERMINE DOCUMENT TYPE
S222
TICKET REQUEST COMMAND
TICKET
S222-2
S223
ISSUE DOCUMENT PRINTING REQUEST USING TICKET
S224
PRINTING ATTRIBUTE INFORMATION REQUEST COMMAND
PRINTING ATTRIBUTE INFORMATION
S224-2
S225
CREATE JOB
SET PRINTING ATTRIBUTE
S226
S227
PAGE IMAGE REQUEST COMMAND
PAGE IMAGE
S227-2
S228
PRINT OUT PAGE IMAGE
S229
DISPLAY PRINTING COMPLETION DIALOG

FIG.23



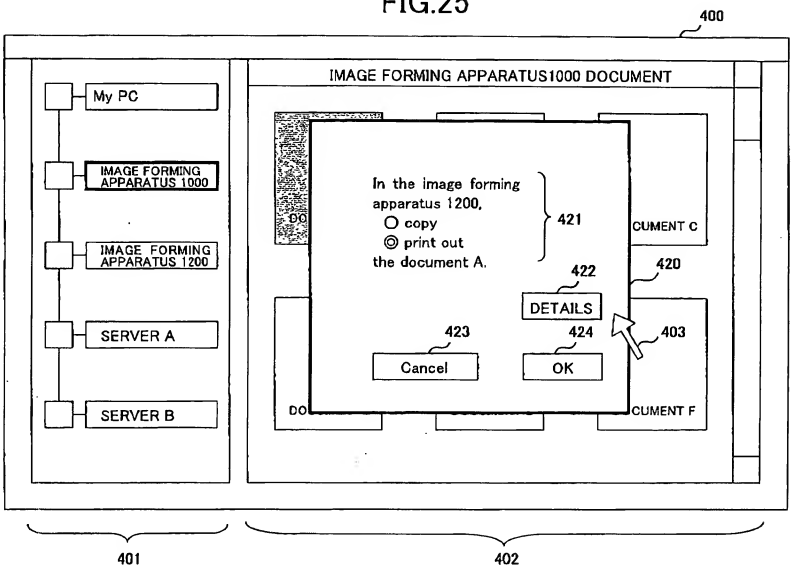
OBLON, SPIVAK, ET AL
DOCKET #: 124043US2
INV: TSUNEMARU KUYAMA
SHEET 23 OF 36

FIG.24



OBLON SPIVAK ET AL
DOCKET #: 243040US2
INV: Tetsuya HARUYAMA
SHEET 24 OF 56

FIG.25



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Tetsuya HARUYAMA
SHEET 25 OF 56

FIG.26

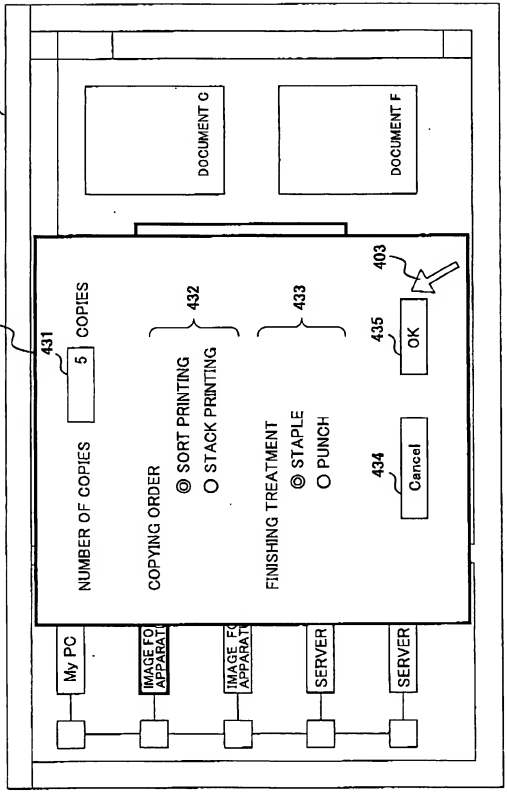
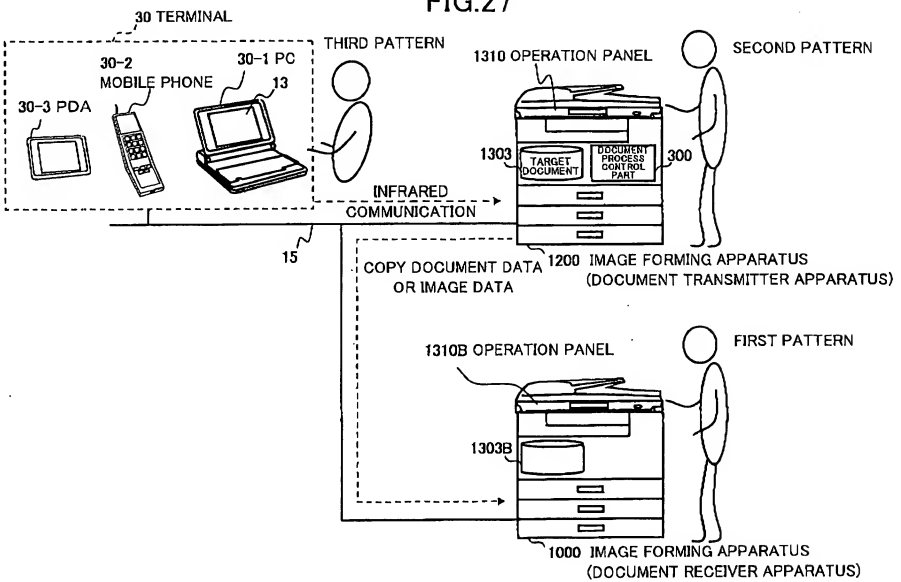

400
430
431
5
COPIES
NUMBER OF COPIES
COPYING ORDER
◎ SORT PRINTING
○ STACK PRINTING
432
FINISHING TREATMENT
◎ STAPLE
○ PUNCH
433
434
Cancel
435
OK
403
DOCUMENT C
DOCUMENT F
My PC
IMAGE FO
APPARATU
IMAGE FO
APPARATU
SERVER
SERVER

FIG.27



OBLON, SPIVAK, ET AL.
DOCKET #: 243043US2
INV: Teruyuki NARUYAMA
SHEET 27 OF 56

FIG.28

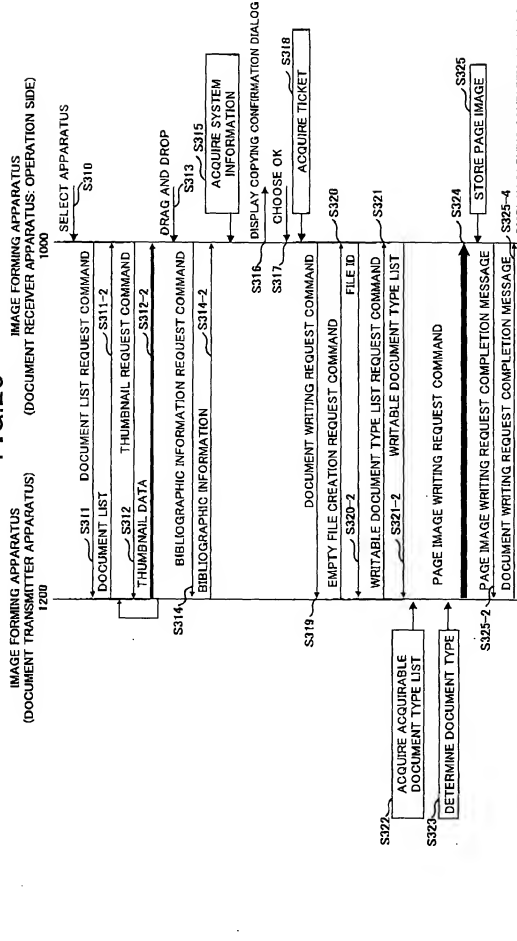


IMAGE FORMING APPARATUS
(DOCUMENT TRANSMITTER APPARATUS)
1200
IMAGE FORMING APPARATUS
(DOCUMENT RECEIVER APPARATUS: OPERATION SIDE)
1000
SELECT APPARATUS
S310
S311 DOCUMENT LIST REQUEST COMMAND
S311-2
DOCUMENT LIST
S312 THUMBNAIL REQUEST COMMAND
S312-2
THUMBNAIL DATA
DRAG AND DROP
S313
S315
ACQUIRE SYSTEM INFORMATION
S314
BIBLIOGRAPHIC INFORMATION REQUEST COMMAND
S314-2
BIBLIOGRAPHIC INFORMATION
DISPLAY COPYING CONFIRMATION DIALOG
S316
CHOOSE OK
S317
S318
ACQUIRE TICKET
S319
DOCUMENT WRITING REQUEST COMMAND
S320
EMPTY FILE CREATION REQUEST COMMAND
S320-2
FILE ID
S321
WRITABLE DOCUMENT TYPE LIST REQUEST COMMAND
S321-2
WRITABLE DOCUMENT TYPE LIST
S322
ACQUIRE ACQUIRABLE DOCUMENT TYPE LIST
S323
DETERMINE DOCUMENT TYPE
PAGE IMAGE WRITING REQUEST COMMAND
S324
S325
STORE PAGE IMAGE
S325-2
PAGE IMAGE WRITING REQUEST COMPLETION MESSAGE
S325-4
DOCUMENT WRITING REQUEST COMPLETION MESSAGE
S326
DISPLAY COPYING COMPLETION DIALOG

OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 29 OF 56

FIG.29

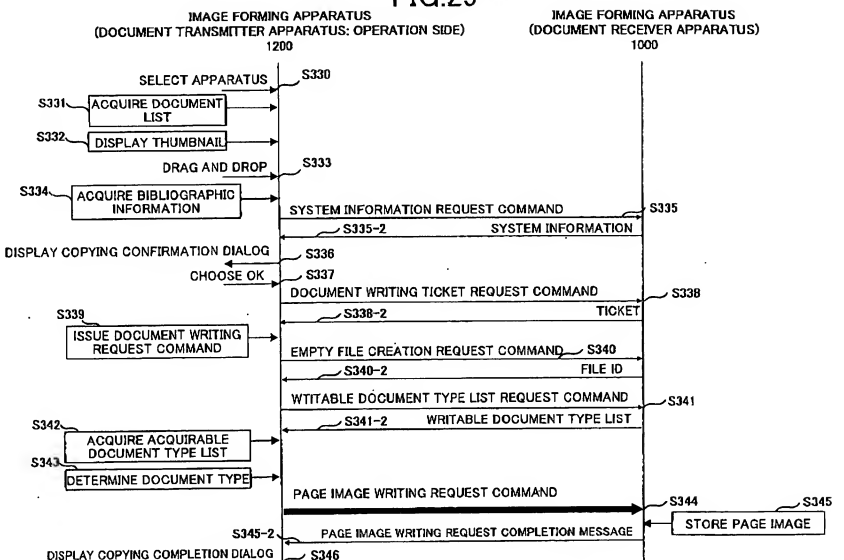
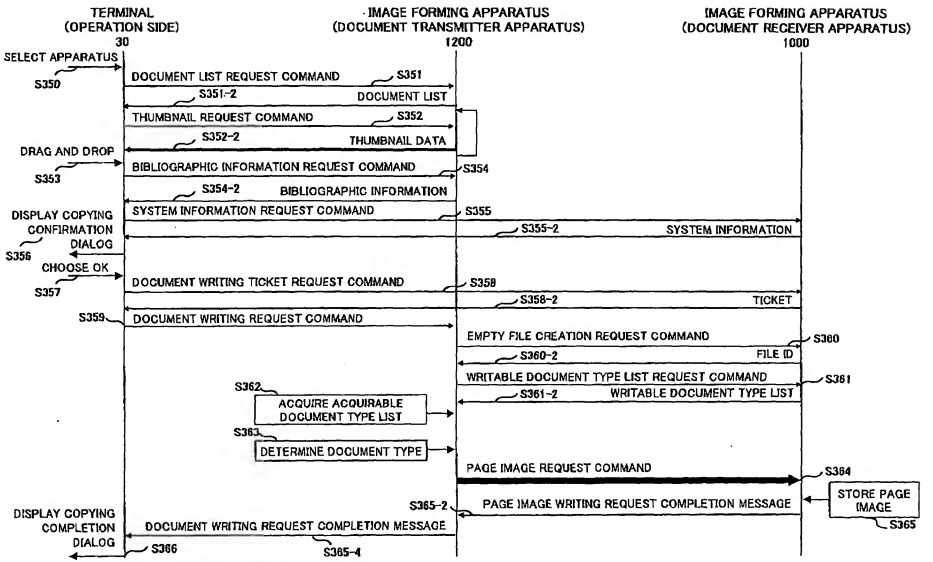
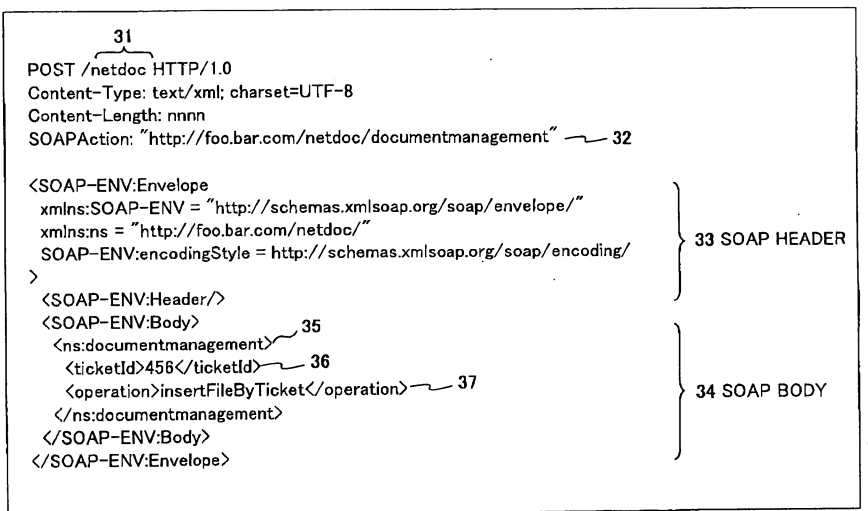


FIG.30



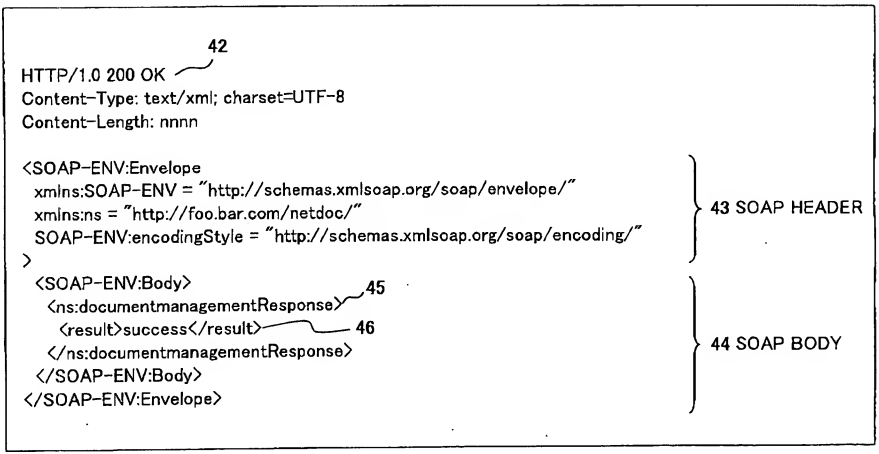
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki HARUYAMA
SHEET 30 OF 56

FIG.31



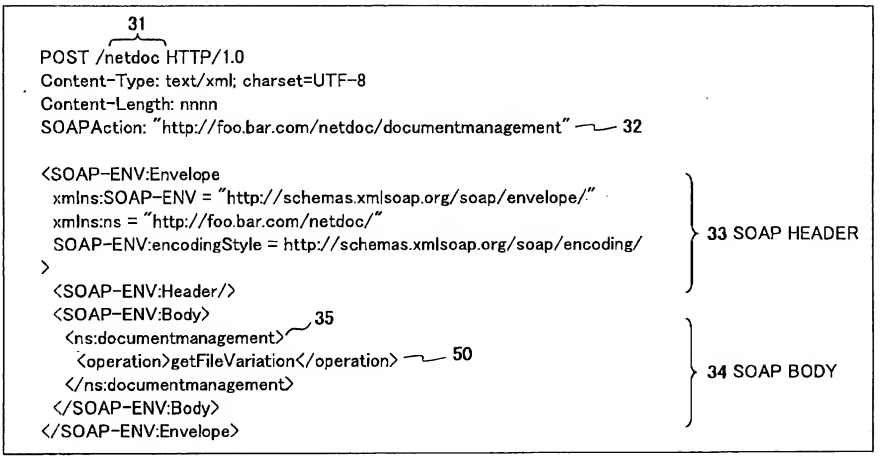
OBLON, SPIVAK, ET AL
DOCKET #: 243041US2
INV: Teruyuki MARUYAMA
SHEET 31 OF 56

FIG.32



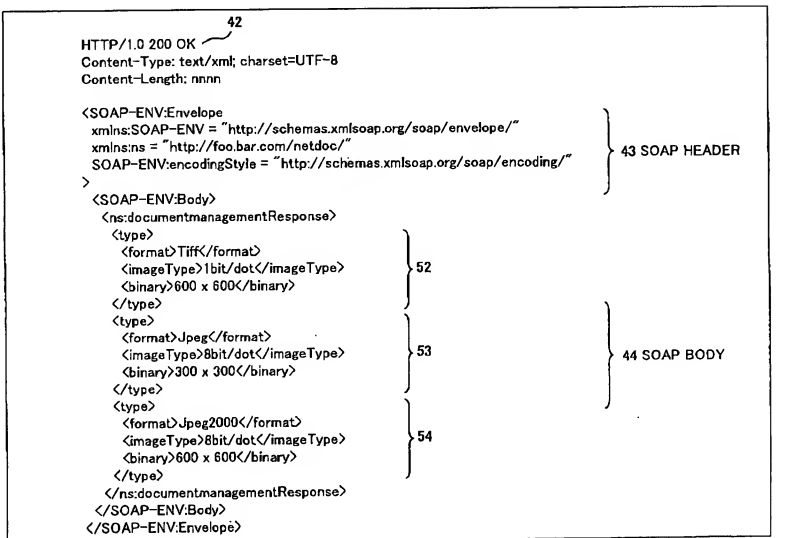
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyoki MARUYAMA
SHEET 32 OF 56

FIG.33



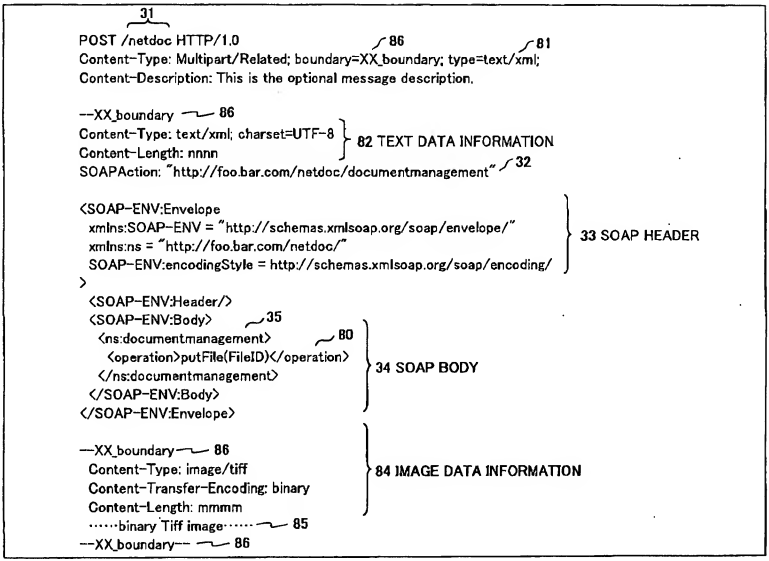
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 33 OF 56

FIG.34



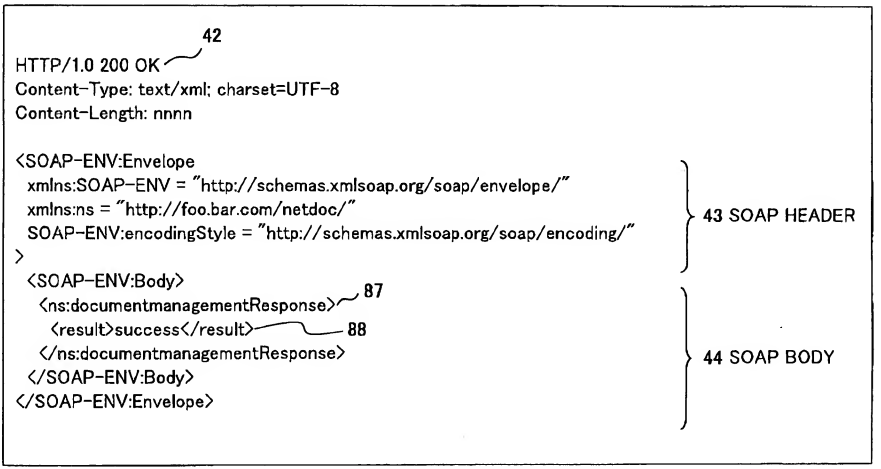
OBLON,SPIVAK,ET AL
DOCKET#:243043US2
INV:Teruyuki MARUYAMA
SHEET 34 OF 56

FIG.35



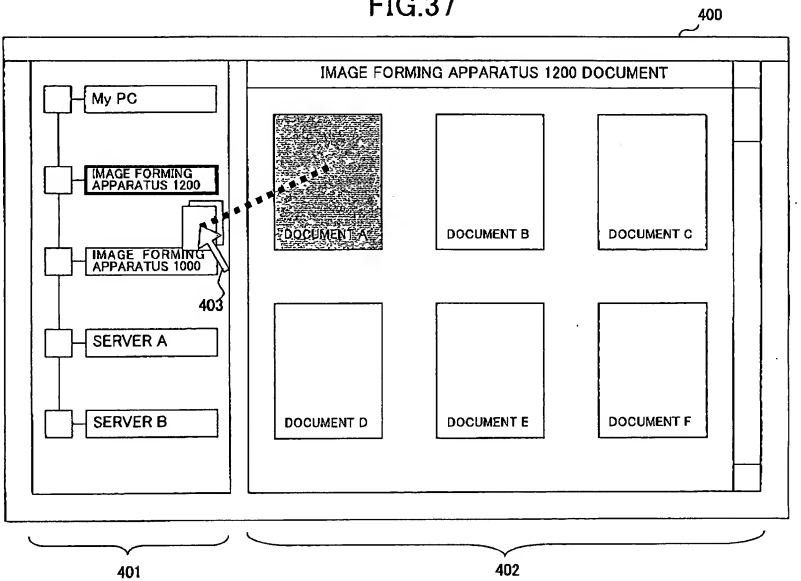
OBLON, SPIVAK, ET AL
DOCKET #: 240043US2
INV: Teruyuki MARUYAMA
SHEET 35 OF 56

FIG.36



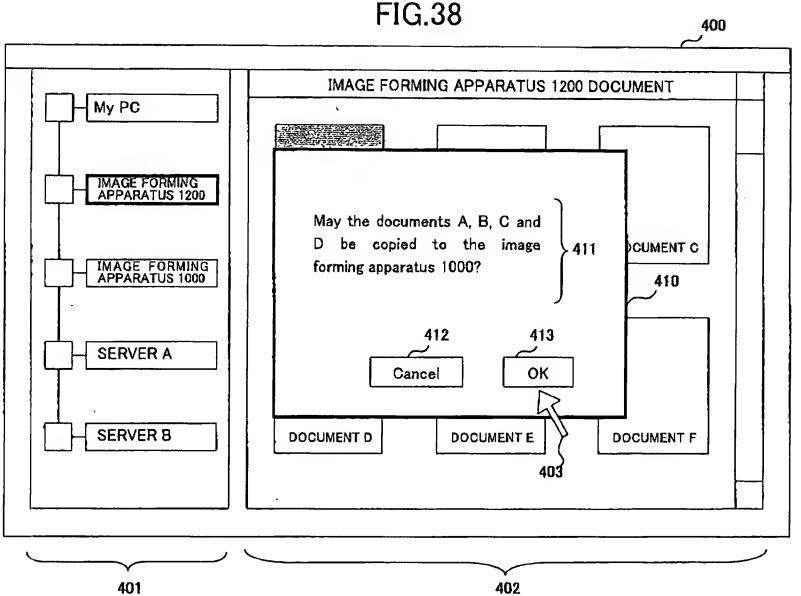
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INVENTOR(S): MARUYAMA
SHEET 36 OF 36

FIG.37



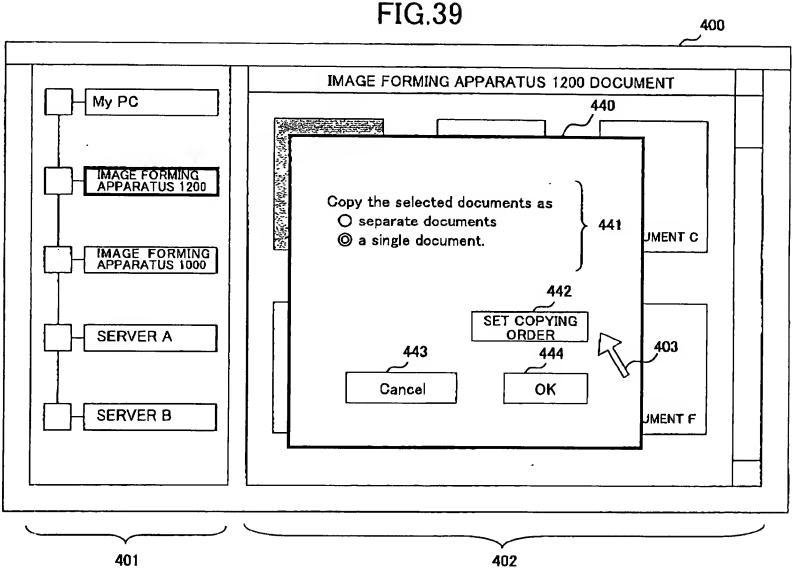
OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki IMARUYAMA
SHEET 37 OF 56

FIG.38



OBLON SPIVAK ET AL
DOCKET # 243043US2
INV: Teruyuki MARUYAMA
SHEET 38 OF 56

FIG.39



OBLON, SPIVAK, ET AL.
DOCKET #: 24004US2
INV: Teruyuki MARUYAMA
SHEET 39 OF 56

FIG.40

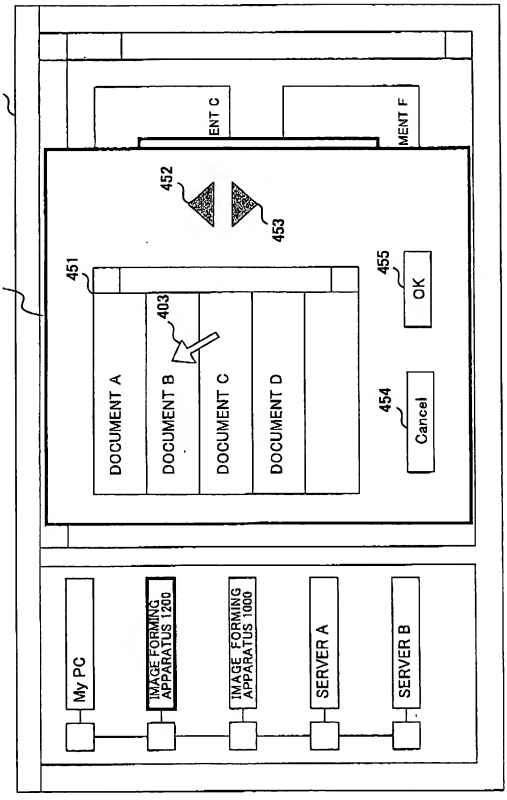
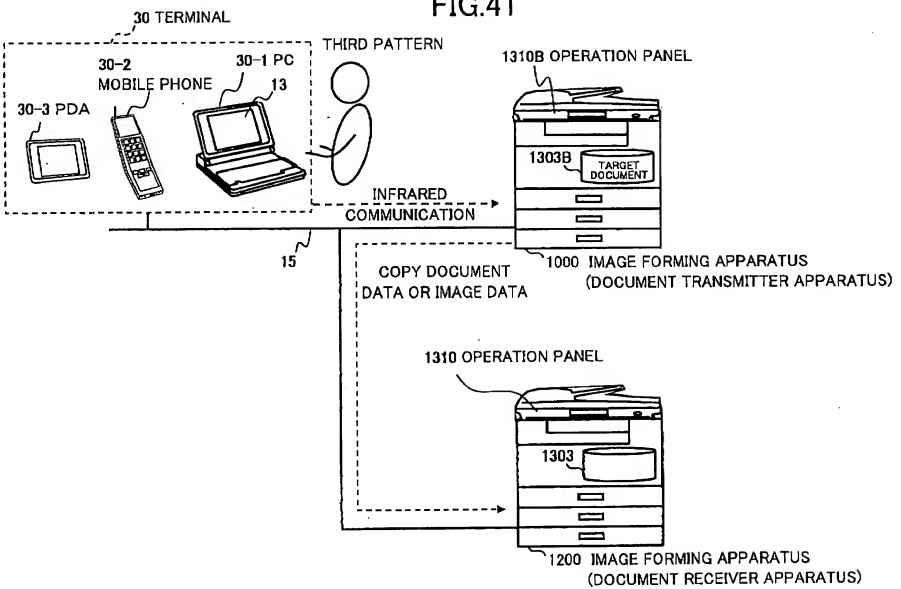

400
450
451
452
453
403
455
OK
454
Cancel
DOCUMENT A
DOCUMENT B
DOCUMENT C
DOCUMENT D
ENT C
MENT F
My PC
IMAGE FORMING APPARATUS 1200
IMAGE FORMING APPARATUS 1000
SERVER A
SERVER B
401
402

FIG.41



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 41 OF 56

FIG.42

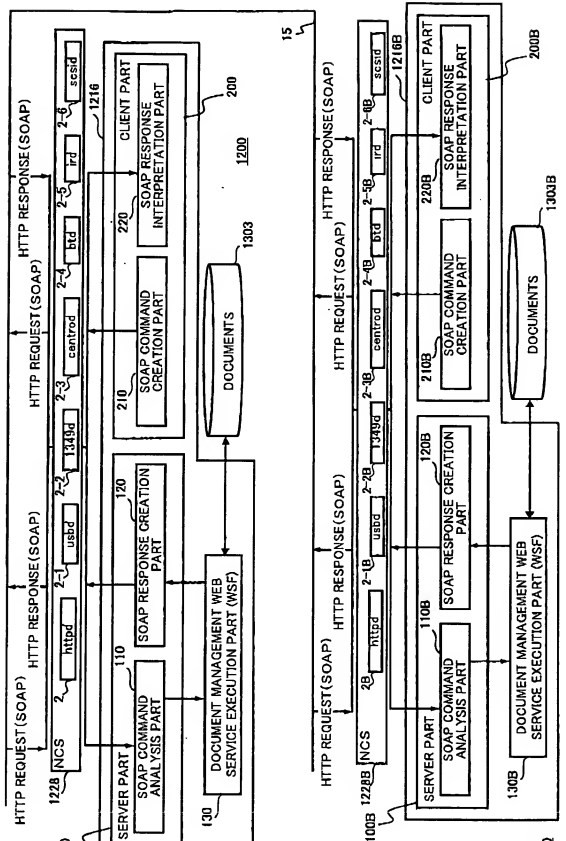
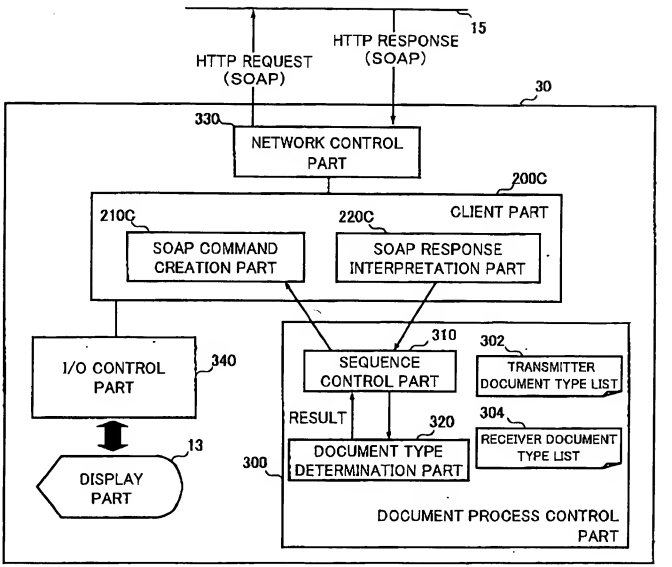

HTTP REQUEST(SOAP)
HTTP RESPONSE(SOAP)
1000
100
1228
NCS
2
httpd
2-1
usbd
2-2
1349d
2-3
centrod
2-4
btd
2-5
ird
2-6
scsid
1216
SERVER PART
110
SOAP COMMAND ANALYSIS PART
120
SOAP RESPONSE CREATION PART
130
DOCUMENT MANAGEMENT WEB SERVICE EXECUTION PART (WSF)
210
SOAP COMMAND CREATION PART
220
CLIENT PART
SOAP RESPONSE INTERPRETATION PART
DOCUMENTS
1303
200
1200
15
100B
1228B
2B
2-1B
2-2B
2-3B
2-4B
2-5B
2-6B
1216B
110B
120B
130B
210B
220B
200B
1303B

FIG.43



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 43 OF 56

OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 44 OF 56

FIG.44

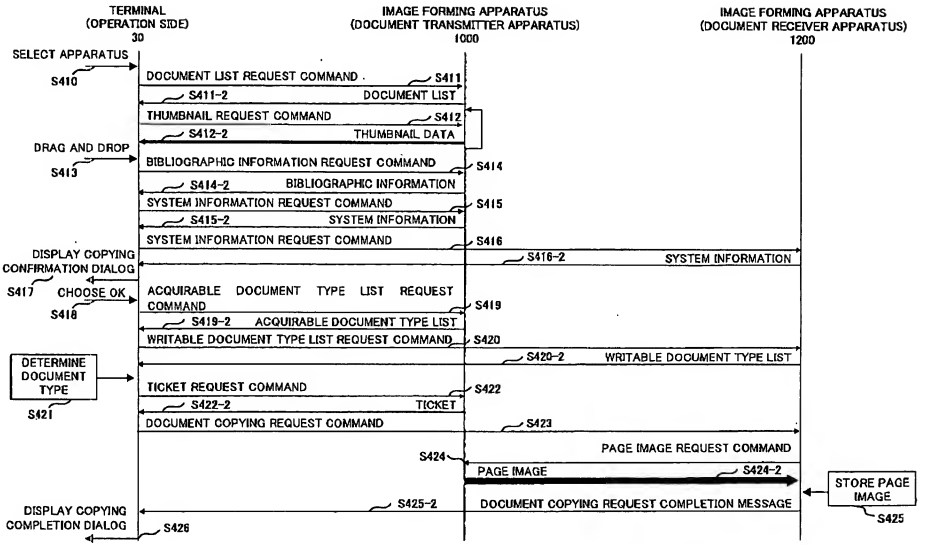
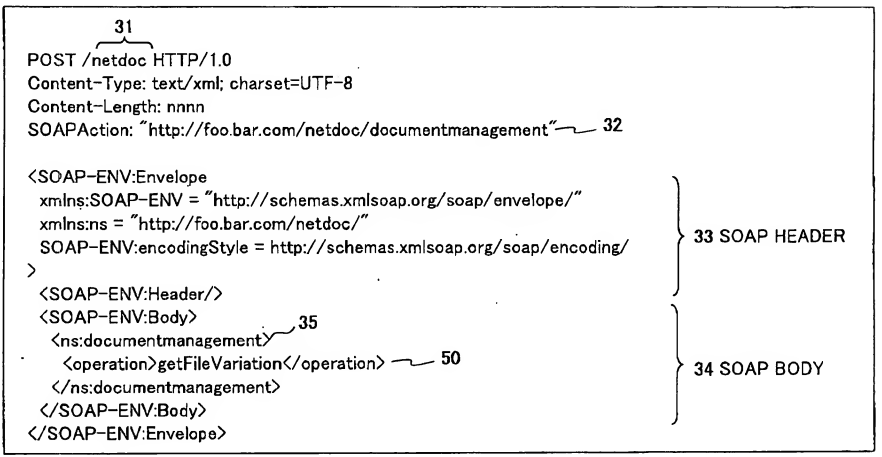
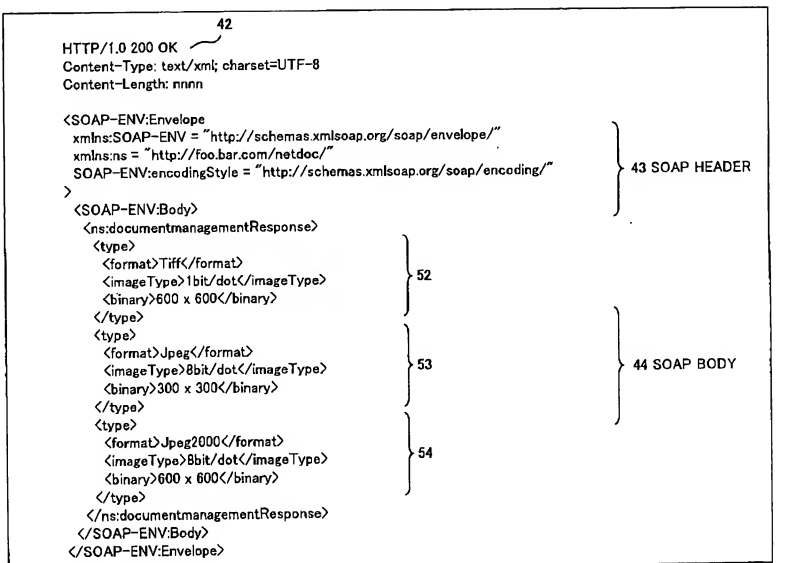


FIG.45



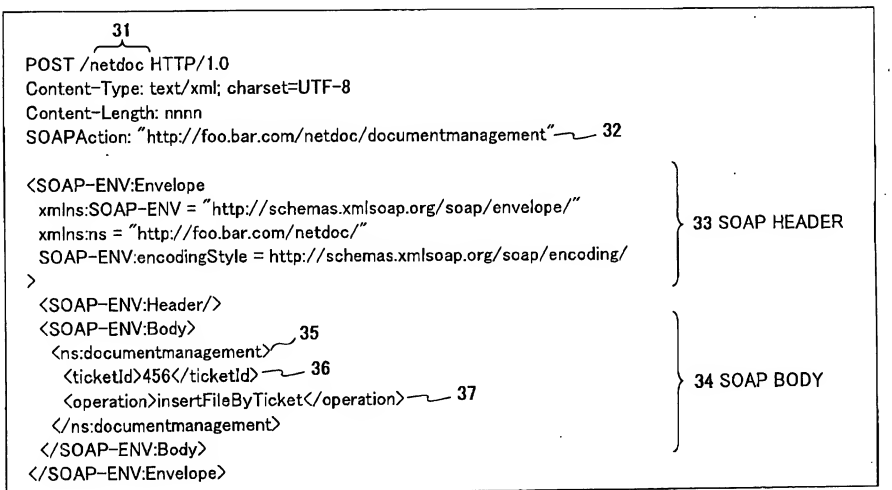
OBLON, SPIVAK, ET AL.
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 45 OF 56

FIG.46



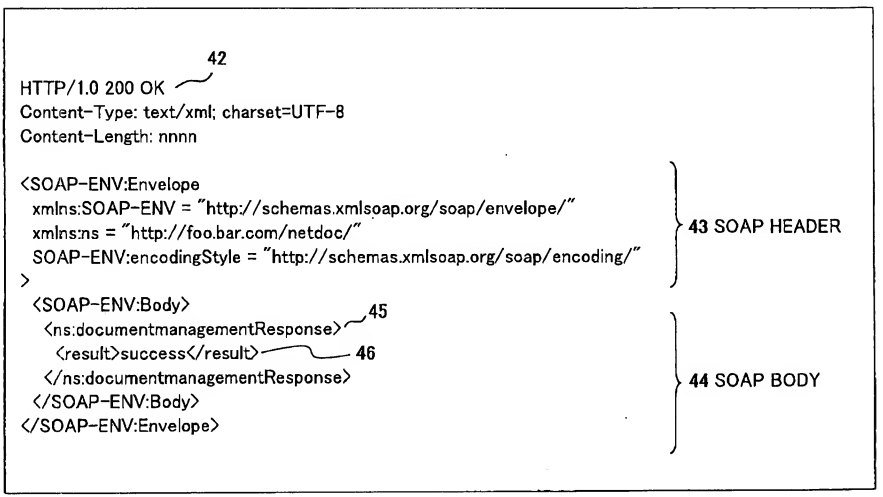
OBLON, SPIVAK, ET AL
DOCKET #: 240043US2
INV: Teruyuki MARUYAMA
SHEET 46 OF 56

FIG.47



OBLON, SPIVAK, ET AL.
DOCKET #: 240451US2
INV.: TETSUHIRO MARUYAMA
SHEET 47 OF 56

FIG.48



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV: Teruyuki MARUYAMA
SHEET 48 OF 56

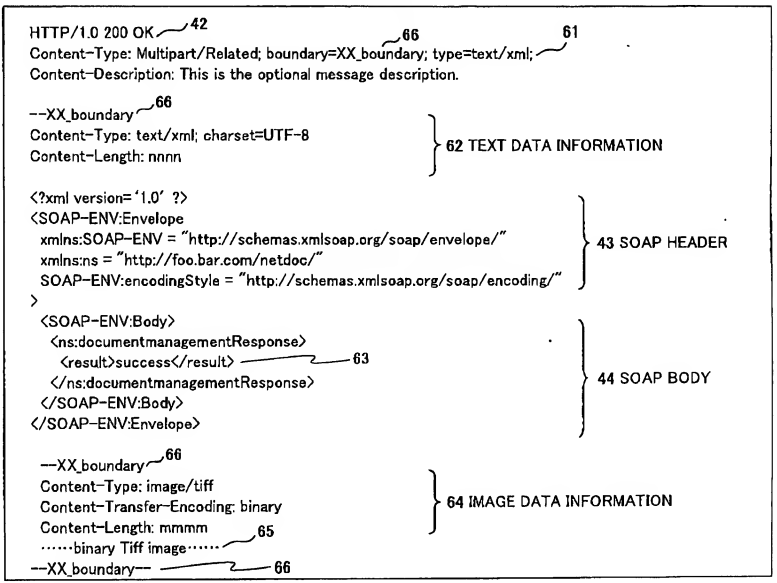
FIG.49

```
POST /netdoc HTTP/1.0                                                    (31)
Content-Type: Multipart/Related; boundary=XX_boundary; type=text/xml;
Content-Length: nnnn
SOAPAction: "http://foo.bar.com/netdoc/documentmanagement"               (32)

<SOAP-ENV:Envelope                                                       (33 SOAP HEADER)
 xmlns:SOAP-ENV = "http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:ns = "http://foo.bar.com/netdoc/"
 SOAP-ENV:encodingStyle = http://schemas.xmlsoap.org/soap/encoding/
>
 <SOAP-ENV:Header/>
 <SOAP-ENV:Body>                                                         (34 SOAP BODY)
  <ns:documentmanagement>                                                (35)
    <type>                                                               (59)
     <format>Jpeg</format>
     <imageType>8bit/dot</imageType>
     <binary>300 x 300</binary>
    </type>
    <operation>getFile(TicketID)</operation>                             (60)
  </ns:documentmanagement>
 </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

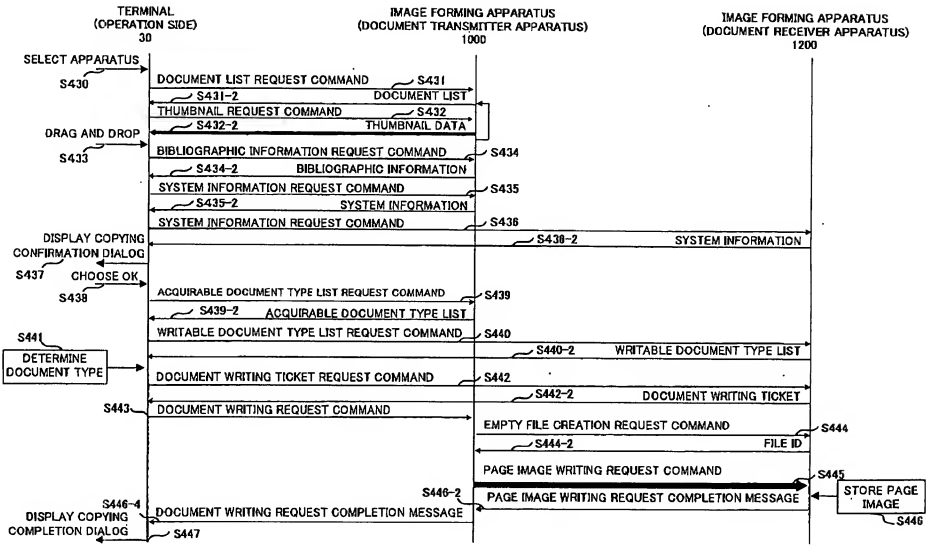
OBLON, SPIVAK, ET AL
DOCKET #: 24304US2
INV: Teruyuki MARUYAMA
SHEET 49 OF 56

FIG.50



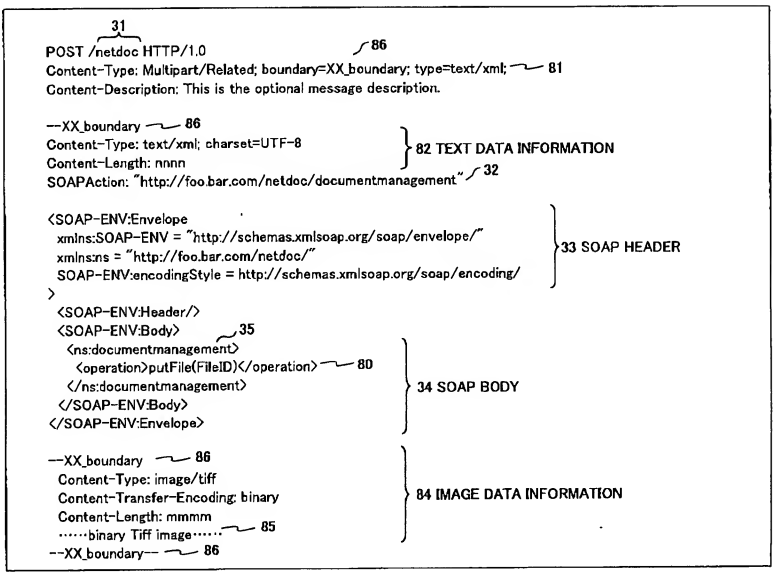
OBLON, SPIVAK, ET AL.
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 50 OF 56

FIG.51



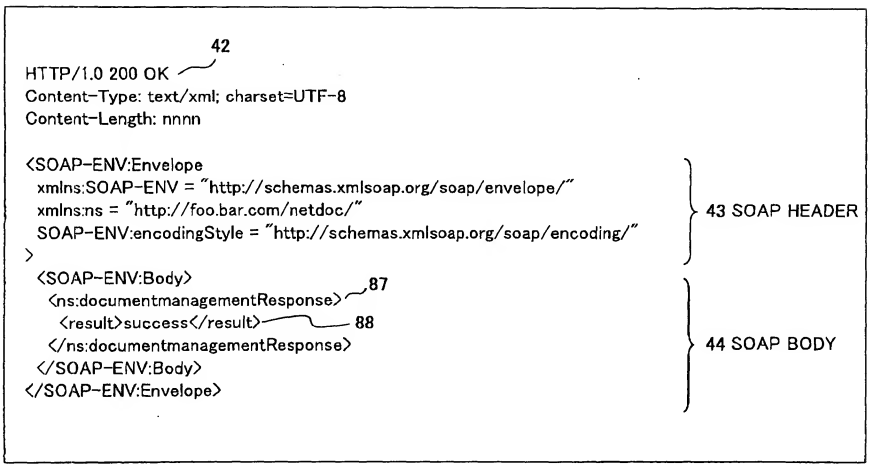
OBLON, SPIVAK, ET AL
DOCKET #: 249843US2
INV: Tetsuya MARUYAMA
SHEET 51 OF 56

FIG.52



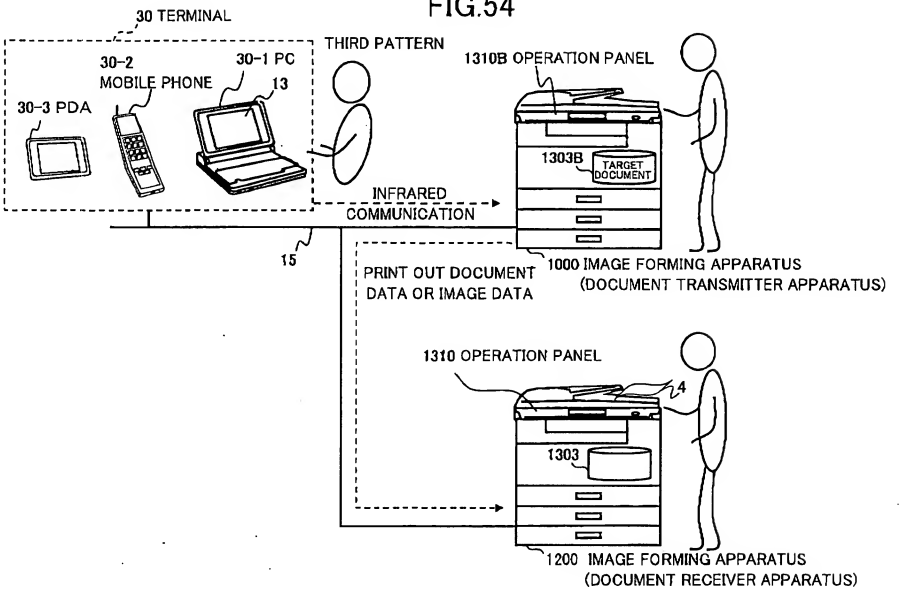
OBLON, SPIVAK, ET AL.
DOCKET #: 249043US2
INV: Tetsuyuki MARUYAMA
SHEET 52 OF 56

FIG.53



OBLON, SPIVAK, ET AL.
DOCKET #: 243961US2
INV: Teruyuki MARUYAMA
SHEET 53 OF 56

FIG.54



OBLON, SPIVAK, ET AL
DOCKET #: 243043US2
INV.: Tetsushi MARUYAMA
SHEET 38 OF 56

FIG.55

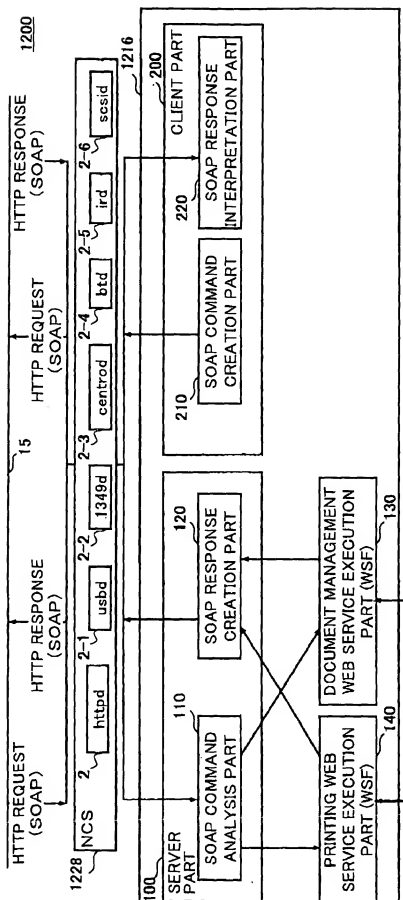
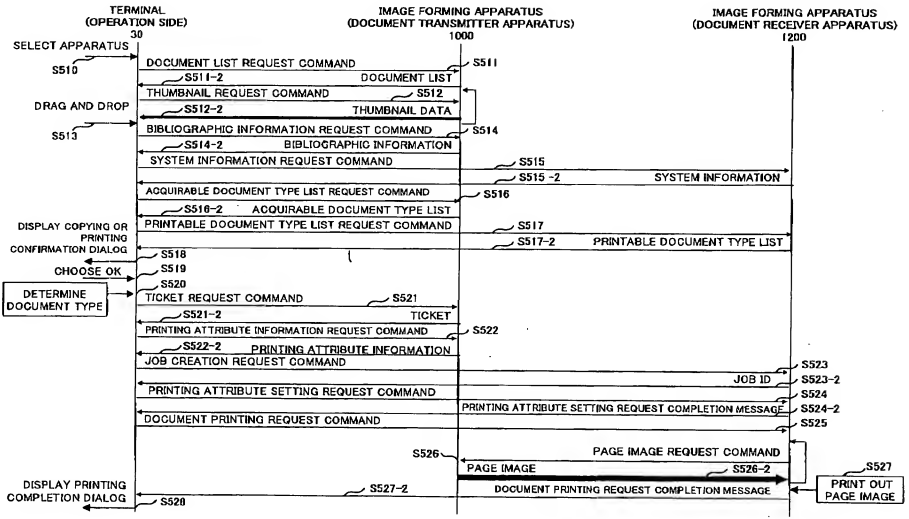

HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
15
HTTP REQUEST (SOAP)
HTTP RESPONSE (SOAP)
1200
1228
NCS
2
httpd
2-1
usbd
2-2
1349d
2-3
centrod
2-4
btd
2-5
ird
2-6
scsid
1216
100
SERVER PART
SOAP COMMAND ANALYSIS PART
110
SOAP RESPONSE CREATION PART
120
200
CLIENT PART
210
SOAP COMMAND CREATION PART
220
SOAP RESPONSE INTERPRETATION PART
PRINTING WEB SERVICE EXECUTION PART (WSF)
140
DOCUMENT MANAGEMENT WEB SERVICE EXECUTION PART (WSF)
130
DOCUMENTS
1303
PLOTTER
1201

FIG.56



OBLON SPIVAK ET AL.
DOCKET #: 243043US2
INV.: Teruyuki MARUYAMA
SHEET 56 OF 56